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EXAMINER
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HOFFMANN, JOHN M

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1791

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### **Supplemental Examiner's Answer**

Responsive to the Reply Brief filed on 6/22/2010, a supplemental Examiner's Answer is set forth below:

The Reply Brief raises three new issues:

**First new issue:** That "the Final Office Action and Examiner's Answer fail to take into account the electromagnetic field screening of the tubes". Examiner fails to see any relevance to this, since it is not being claimed, nor is there any evidence that such imparts any criticality or unexpected results. Furthermore, there appears to be no mention of any "screening" or "screen" in the specification.

**Second new issue:** That Onozawa provides no teaching or suggestion that one could successfully use low-alkali material in a skull crucible as claimed; since electrical conductivity is caused by alkali-ions which have a high mobility in the melt, and that one would not use a low conductivity glass to deposit sufficient energy to the melt. This also does not appear to be relevant since the claims do not require low conductivity glass nor low-alkali glass (see discussion below). Nevertheless Kunnert provides disclosure of a reasonable expectation of success at col. 1, lines 26-27, which teaches to increase the temperature to increase the conductivity of the glass. To Examiner this seems to be a matter of common sense for one of ordinary skill. As temperatures increase, ions (alkali as well as non-alkali) become more mobile. As ions become more mobile their ability to move increases, thus their conductivity increase. Thus one would expect that as long as there are some ions (e.g. alkaline) in the glass, one would know to heat the glass sufficiently to achieve the needed conductivity.

One would understand this to be true even without any alkali ions –because other ions would have a sufficient higher mobility at a high enough temperature.

**The third new issue:** that Onozawa glass does not meet the 'low-alkali material' of claim 1 because Onozawa teaches a content of 2.5-8.0% lithium oxide.

This is not very relevant because the claimed method does not require 'low-alkali material'. Although the preamble of claim 1 recites "A process for producing a borate-containing, low-alkali material, comprising...." No limitation in the body of claim refers to any "borate" nor anything of "low-alkali".

Does the preamble breathe life and meaning into the claim?

MPEP 2111.02 provides guidance regarding the effect of a preamble upon a claim. To Examiner, the following is most important.

The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use "can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim." Corning Glass Works, 868 F.2d at 1257, 9 USPQ2d at 1966. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also Rowe v. Dror, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); Kropa v. Robie, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim)

First: Examiner finds the plain meaning of "for producing" is that of an intended use, since one can immediately envision creating something that "for producing a

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borate-containing, low alkali material" without actually making that material. For example a melt or cullet (with high alkali) can be made via the claimed steps of induction heating and supplying coolant. And that (high-alkali) melt or cullet can then be sold to a second party to be an ingredient in another process "for producing a borate containing, low-alkali material". Examiner notes that two or more molten glasses can be blended together. Likewise two different glasses in powdered form can be blended together. Thus one can consider the present preamble to be an intended use. That is, one can perform the claimed induction-heating and supplying for the purpose of producing a borate-containing, low-alkali material

Second: the use of two somewhat similar, yet clearly different terms: "boron-containing, low-alkali material" and "boron-containing melting material" immediately suggests that they are not the same thing. Thus one should not read the "low-alkali" of the first into the second.

Third, the repeated reference to boron in the body of claim (with borate in the preamble) and the use of 'low-alkali' in the preamble and a complete lack in the body, tends to suggest an intention that "low-alkali" is not required to be part of either the induction-heating step, or the supplying step.

Other factors can also be considered in determining if the preamble breathes life and meaning to the claims: What did applicants invent? What did applicants intend to claim?

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As to the first question: both the TITLE and the "further" embodiments (specification, page 22, starting at line 11 and page 23, line 16) are completely silent as to alkali content, although there is much discussion regarding low-alkali materials in the specification, Page 20, line 17 indicates that M(I) is alkali. The first mentioned embodiment (page 20, line 5) limits alkali content to ">0.50 mol%". Thus based on the entirety of the record, Applicants invented methods that have low-alkali, as well as methods which did not need low alkali.

Further the Brief's "Summary of claimed subject matter" refers to page 4, lines 12-20 of the specification which states that the process "makes it possible" to melt low alkali materials. There is a wide gap between a process that makes melting possible, and a process of actually melting.

So the final question: What did applicants intend to claim? Examiner finds one reviewing the entire application would assume appellants intended to claim the invention broadly and that nothing should be read into the claims. For example even though the body refers to "boron-containing melting material" and that the melting material "is melted", it would be unreasonable to interpret the claim as requiring a step of melting. See the paragraph bridging pages 18-19 of the specification which discloses two different modes of the invention, one where melting occurs, and another where the material is refined. In both crucibles the material "is melted": it is in a melted state. Refining generally starts and ends with molten material - no melting step is required.

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The method also does not require the creation of a glass. See page 10, the first full paragraph discloses using cullet (i.e. pieces of glass) as a sole ingredient. That is, the claim 1 is of sufficient broad scope that it reads on processes such as adding pieces of glass to a skull furnace and melting them to form molten glass of the same composition.

In summary: although appellant invented a method of making glass that is low-alkali, examiner finds nothing in the specification, claims, amendment or any argument (prior to the Reply Brief) which suggests appellant intended the claims to be limited to low-alkali material. Therefore one would not interpret the preamble as breathing life and meaning into the claims.

Appellant may file another reply brief in compliance with 37 CFR 41.41 within two months of the date of mailing of this supplemental examiner's answer. Extensions of time under 37 CFR 1.136(a) are not applicable to this two month time period. See 37 CFR 41.43(b)-(c).

/John Hoffmann/

Primary Examiner, Art Unit 1791

**A Technology Center Director or designee has approved this supplemental examiner's answer by signing below:**

/Gregory L Mills/

Supervisory Patent Examiner, Art Unit 1700

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